



Billing Code: 4910-60-P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 175, 176, 177, 178 and 180

[Docket No. PHMSA–2015-0103 (HM-260)]

RIN 2137-AF11

Hazardous Materials: Editorial Corrections and Clarifications (RRR)

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: This final rule corrects editorial errors, makes minor regulatory changes and, in response to requests for clarification, improves the clarity of certain provisions in the Hazardous Materials Regulations. The intended effect of this rule is to enhance the accuracy and reduce misunderstandings of the regulations. The amendments contained in this rule are non-substantive changes and do not impose new requirements.

DATES: This regulation is effective [INSERT DATE 30 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Aaron Wiener, Standards and Rulemaking Division, (202) 366-8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., 2nd Floor, Washington, D.C., 20590-0001.

SUPPLEMENTARY INFORMATION:

- I. Background
- II. Section-by-Section Review
- III. Regulatory Analyses and Notices
 - A. Statutory/Legal Authority for the Rulemaking
 - B. Executive Orders 12866 and 13563 and DOT Regulatory Policies and Procedures
 - C. Executive Order 13132
 - D. Executive Order 13175
 - E. Regulatory Flexibility Act, Executive Order 13272, and DOT Policies and Procedures
 - F. Executive Order 13563 Improving Regulation and Regulatory Review
 - G. Paperwork Reduction Act
 - H. Regulatory Identifier Number (RIN)
 - I. Unfunded Mandates Reform Act

- J. Environmental Assessment
- K. Privacy Act

I. Background

The Pipeline and Hazardous Materials Safety Administration (PHMSA) annually reviews the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) to identify typographical errors, outdated addresses or other contact information, and similar errors. In this final rule, we are correcting typographical errors, incorrect references to the Code of Federal Regulations (CFR) and international standards citations, inconsistent use of terminology, misstatements of certain regulatory requirements, and inadvertent omissions of information, and making revisions to clarify the regulations. Of the corrections and clarifications made in this final rule, a significant number originate from three recent final rules under the following dockets: PHMSA–2009–0063 (HM–250) [79 FR 40590]; PHMSA–2009–0095 (HM–224F) [79 FR 46012]; and PHMSA-2013-0260 (HM-215M) [80 FR 1075]. Because these amendments do not impose new requirements, notice and public comment are unnecessary.

II. Section-by-Section Review

The following is a section-by-section summary of the minor editorial corrections and clarifications made in this final rule.

Part 171

Section 171.22

This section prescribes the authorization and conditions for use of international standards and regulations. The wording at the end of paragraph (f)(4) applicable to shipping paper retention, states "§ 172.201(e) of this part", which incorrectly assigns it to 49 CFR part 171. As § 172.201(e), is not in part 171, in this final rule, the text is revised to read "§ 172.201(e) of this subchapter."

Section 171.23

Section 171.23 prescribes requirements for specific materials and packagings transported under various international standards. Paragraph (a)(4)(ii) contains a grammatical error stating the word “drive” instead of “device.” In this final rule, we are correcting this grammatical error.

Additionally, the text in the middle of paragraph (a)(5), applicable to cylinders not equipped with pressure relief devices, states the cylinders must be "tested and marked in accordance with part 178 of this subchapter and otherwise conforms to the requirements of part 173 for the gas involved", but does not reference that part 173 belongs to subchapter C. In this final rule, we are revising (a)(5) to make this clarification.

Section 171.24

Section 171.24 provides additional requirements for the use of the International Civil Aviation Organization's Technical Instructions (ICAO TI) for the Safe Transport of Dangerous Goods by Air. The text at the end of paragraph (c), applicable to transportation by highway prior to or after transportation by aircraft, states a "motor vehicle must be placarded in accordance with subpart F of part 172", but does not reference that part 172 belongs to Subchapter C. In this final rule, we are revising paragraph (c) to make this clarification.

Part 172

Section 172.101

This section prescribes the purpose and instructions for use of the § 172.102 Hazardous Materials Table (HMT). We are making a number of editorial corrections to several entries in the HMT. The editorial corrections are as follows:

- In a final rule published under Docket Number PHMSA-2012-0080 (HM-244E) [77 FR 60935], the entry for "Aminophenols (o-; m-; p-), UN2512" was amended to correct a publication error in Column (2). In making the correction, the text in Columns (3) through (10B) was inadvertently removed and left blank. This final rule corrects that error by reinstating the text in Columns (3) through (10B) for UN2512 as it read on prior to the HM-244E rulemaking October 5, 2012.

Amendments to Column (1) Symbols

- For the entry "Environmentally hazardous substances, solid, n.o.s, UN3077," the symbol "G" is added to Column (1) as it was inadvertently removed when the entry was amended in a final rule published under Docket Number PHMSA 2011-0158 (HM-233C) [79 FR 15033].
- For the entry "Self-heating solid, organic, n.o.s, UN3088," the symbol "G" is added to

Column (1) as it was inadvertently removed when the entry was amended in a final rule published under Docket Number PHMSA 2011–0158 (HM–233C) [79 FR 15033].

Amendments to Column (2) Hazardous Materials Descriptions and Proper Shipping Names.

- For the entry “N-Aminoethyl piperazine, UN2815,” the space between “N-Aminoethyl” and “piperazine” is removed to read “N-Aminoethylpiperazine” as the space was inadvertently introduced in the HM-215M final rule.
- For the entry “Ammonia solutions, relative density less than 0.880 at 15 degrees C in water, with more than 35 percent but not more than 50 percent ammonia, UN2073,” the plural “solutions” is revised to read “solution” consistent with the International Maritime Dangerous Goods (IMDG) Code, the ICAO TI, the United Nations Recommendations on the Transport of Dangerous Goods (UN Model Regulations).
- For the entry “Ammonia solutions, relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia, UN2672,” the plural “solutions” is revised to read “solution” as it was inadvertently changed when the entry was amended in a final rule published under Docket Number PHMSA 2011–0158 (HM–233C) [79 FR 15033].
- For the entry “Batteries, dry, containing potassium hydroxide solid, electric storage, UN3028,” the phrase “electric storage” was inadvertently changed from italicized to non-italicized text in the HM-215M final rule. In this final rule, the italicized text is reinstated.
- For the entry “Environmentally hazardous substances, solid, n.o.s, UN3077,” the plural “substances” is revised to read “substance” as it was inadvertently changed when the entry was amended in a final rule published under Docket Number PHMSA 2011–0158 (HM–233C) [79 FR 15033].
- For the entry “Paint, corrosive, flammable (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base), UN3470,” the word “solutions” was inadvertently added to the italicized text in the HM-215M final rule. In this final rule, the word “solutions” is removed.
- For the entry “Printing ink, flammable or Printing ink related material (including printing ink thinning or reducing compound), flammable, UN1210,” the first instance of the word “flammable” was inadvertently

changed from italicized to non-italicized text in the HM-215M final rule. In this final rule, the italicized text is reinstated.

- For the entry “Trinitrobenzene, wetted with not less than 30 percent water, by mass, UN1354,” the word “wetted” was inadvertently changed from non-italicized to italicized text in the HM-215M final rule. In this final rule, the non-italicized text is reinstated.

Amendments to Column (5) Packing Group

- For the entry “Cells, containing sodium, UN3292,” the Packing Group in Column (5) is removed for consistency with “Batteries, containing sodium, UN3292,” as amended in the HM-215M final rule.
- In a final rule published under Docket Number PHMSA–2013-0041 (HM–215K, HM–215L, HM–218G and HM–219) [77 FR 65453], PHMSA revised the HMT entry “Petroleum sour crude oil, flammable, toxic, UN3494,” that had been erroneously placed between the Packing Group II and III petroleum oil entries under NA1270. In making the correction, the Packing Group II and III entries for UN3494 were inadvertently omitted. This final rule corrects that error by reinstating the Packing Group II and III entries for UN3494.

Amendments to Column (6) Label Codes

- For “Organometallic substance, liquid, water-reactive, UN3398,” the Class 3 subsidiary hazard code is removed from the Packing Group II and III entries. These subsidiary hazard codes were inadvertently added when the entries were revised in the HM-215 final rule.

Amendments to Column (7) Special Provisions

- For the entry “Combustible liquid, n.o.s., NA1993,” special provision T4 is removed. Special Provisions T1 and T4 are both currently assigned to this entry; however, only one portable tank code should be listed as both cannot be used when building and constructing a portable tank. Special provision T1 is listed correctly. Special provision T4 was inadvertently added when amending the entry in a final rule published under Docket Number RSPA–2000–7702 (HM–215D) [66 FR 33316].
- For the entries “Lithium ion batteries including lithium ion polymer batteries, UN3480” and “Lithium metal batteries including lithium alloy batteries, UN3090,” special provision A54 is added in Column (7). Special

provision A54 was inadvertently removed when these entries were revised in the HM-215M final rule.

Amendments to Column (8B) Non-bulk Packaging Authorizations

- For the entry “Self-heating solid, organic, n.o.s, UN3088, PG III,” the packaging authorization is revised to read “213” as it was inadvertently changed when the entry was amended in a final rule published under Docket Number PHMSA 2011–0158 (HM–233C) [79 FR 15033].

Amendments to Column (9) Quantity Limitations

- For the entry “Self-heating solid, organic, n.o.s, UN3088, PG III,” the Quantity Limitation in Column (9A) is revised to read “25 kg” as it was inadvertently changed when the entry was amended in a final rule published under Docket Number PHMSA 2011–0158 (HM–233C) [79 FR 15033].
- For the entry “Self-heating solid, organic, n.o.s, UN3088, PG III,” the Quantity Limitation in Column (9B) is revised to read “100 kg” as it was inadvertently changed when the entry was amended in a final rule published under Docket Number PHMSA 2011–0158 (HM–233C) [79 FR 15033].
- For the entry “Self-reactive solid type B, UN3222,” the Quantity Limitation in Columns (9A) and (9B) are revised to read “Forbidden.” When this entry was revised in a final rule published under Docket Number PHMSA 2011-0142 (HM-219) [78 FR 14702], Columns (9A) and (9B) were inadvertently revised from “Forbidden” to “(1)” and “(2)” respectively. This entry was subsequently revised in a Federal Register correction document (78 FR 17874), but due to a publication error it was not transitioned into the printed or electronic versions of the CFR. In this rulemaking, PHMSA is reinstating the correct quantity limitation notation of “Forbidden” in Columns (9A) and (9B) for this entry.

Amendments to Column (10) Vessel Stowage Requirements

- Two entries exist for "Trinitrobenzene, dry or wetted with less than 30 percent water, by mass, UN0214." One entry indicates “4” in Column (10A) and the other “04”. In this final rule both entries are removed and the correct entry with “04” in Column (10A) is re-added.
- For the PG III entry for “Oxidizing solid, corrosive, n.o.s, UN3085,” the Vessel Stowage in Column (10B) is corrected from “F56” to read “56” as the “F” was inadvertently added when the entry was revised in the

HM-215M final rule.

Section 172.102

Section 172.102 lists special provisions applicable to the transportation of specific hazardous materials. Special provisions contain packaging requirements, prohibitions, and exceptions applicable to particular quantities or forms of hazardous materials. In a final rule published under Docket Number PHMSA 2011-0158 (HM-233C) [79 FR 15033], PHMSA incorporated DOT-SP 12825 to the entry in the HMT for “UN2990, Life-saving appliances, self-inflating,” by adding a new special provision 338 in Column 7. The special permit was limited only to transport by motor vehicle; however, the special provision was added without the modal limitation. Therefore, in this final rule, PHMSA is revising special provision 338 to clarify applicability to motor vehicle only.

In the HM-250 final rule, the paragraphs contained in § 173.421 were renumbered. The HM-215M rulemaking subsequently added special provision 369, but did not incorporate the paragraph renumbering of § 173.421. In this final rule, PHMSA is revising special provision 369 to reflect the appropriate paragraphs of § 173.421 along with some grammatical revisions.

Section 172.202

Section 172.202 establishes requirements for shipping descriptions on shipping papers. In paragraph (d), the example for a technical name in association with the basic description is in a sequence that is no longer authorized under the HMR. In this final rule, the sequence is revised by placing the identification number at the beginning of the sequence.

Section 172.203

Section 172.203 prescribes additional shipping paper requirements for “n.o.s.” and generic shipping descriptions. The example in paragraph (k)(1) for “UN2924” is missing the Class 8 subsidiary risk. In this final rule, the subsidiary risk is added to the example.

Section 172.502

Section 172.502 specifies prohibited and permissive placarding requirements. In this final rule, paragraph (b)(3), applicable to use of a safety sign or safety slogan (e.g., “Drive Safely” or “Drive Carefully”), is removed as

the transitional provision is expired.

Section 172.704

Section 172.704 specifies the requirements for hazardous materials training. In this final rule, the expired transitional provision in paragraph (e)(2), applicable to training for railway employees, is removed.

Part 173

Section 173.4

This section provides requirements for shipments of small quantities by highway and rail. In the HM-250 final rule, the paragraphs contained in § 173.421 were renumbered. Multiple sections referencing the previous paragraph numbering of § 173.421 were not amended in the HM-250 rulemaking. In this final rule, PHMSA is revising paragraph (b) to reflect the appropriate paragraphs of § 173.421.

Section 173.8

This section provides exceptions for non-specification packagings used in intrastate transportation. Paragraph (a) of § 173.8, authorizes transport of non-specification bulk packaging by an intrastate motor carrier until July 1, 2000. In this final rule, we are removing and reserving paragraph (a) as this transition date has expired.

Section 173.25

This section provides requirements for packages utilizing overpacks. In the HM-250 final rule, paragraph (a)(4) was revised to require the “OVERPACK” marking for Class 7 (radioactive) material when a Type A, Type B(U), Type B(M) or industrial package is required. Paragraph (a)(4) was subsequently revised in the HM-215M final rule by specifying the minimum size requirement for the “OVERPACK” marking. In making the HM-215M revision the requirement added in the HM-250 final rule was inadvertently omitted. We are revising paragraph (a)(4) to include the requirements added in both the HM-250 and HM-215 final rules.

Section 173.127

Section 173.127 provides a definition and criteria for the assignment of packing groups for Division 5.1 oxidizers. In the HM-215M final rule, PHMSA authorized an alternative test for assigning packing groups to

Division 5.1 oxidizing solids. Due to an incorrect regulatory instruction, the paragraph (b)(2) was inadvertently removed. In this final rule, PHMSA is reinstating the paragraph (b)(2) text.

Section 173.156

Section 173.156 prescribes exceptions for limited quantity and ORM material. In a final rule published under Docket Number PHMSA-2013-0041 (HM-215K, HM-215L, HM-218G and HM-219) [78 FR 65454], paragraph (b)(2)(vi) was removed which was the last paragraph in the section. As a result, the preceding paragraph (b)(2)(v) became the last paragraph in the section and presently ends with “; and” instead of a period. In this rule, we are replacing “and” at the end of paragraph (b)(2)(v) with a period and adding “and” to the end of paragraph (b)(2)(iv).

Section 173.185

Section 173.185 sets forth packaging requirements and certain conditional exceptions for the transport of lithium batteries. The HM-224F final rule revised this section in its entirety. This final rule makes thirteen editorial corrections and clarifications to § 173.185 as follows:

1. Paragraph (b)(4)(i) is revised to clarify that the outer packaging requirement only applies to lithium cells or batteries contained in equipment when an outer packaging is used.
2. In paragraph (b)(4)(iii) applicable to spare lithium cells or batteries packed with equipment the word “ion” is removed to clarify that this requirement applies not only to lithium ion cells and batteries, but also to lithium metal cells and batteries. This editorial revision clarifies the intent discussed in the HM-224 final rule preamble on 79 FR 46019 (third column).
3. In paragraph (b)(5), the reference to (b)(4) is replaced with (b)(3)(iii) as (b)(4) does not contain UN performance packaging requirements.
4. Paragraph (c) is revised to clarify that the UN performance packaging requirements in both paragraphs (b)(3)(ii) and (b)(3)(iii) do not apply to any packages containing smaller lithium cells and batteries meeting the conditions of paragraph (c) including packages that contain lithium metal cells and batteries packed with, or contained in equipment. Previous to the revision in this final rule, paragraph (c) excepted smaller

lithium cells and batteries from the UN performance packaging requirements in paragraphs (b)(3)(ii) and (b)(4) of this section. While the original intent was to except all smaller lithium cells and batteries from the UN performance packaging, a potential conflict was identified with regard to smaller lithium cells and batteries packed with equipment because the requirements in (b)(3)(iii)(A) and (B) indicate that such batteries must meet the Packing Group II performance requirements as specified in paragraph (b)(3)(ii). Because the requirements of (b)(3)(iii) were not specifically excepted in paragraph (c), this caused confusion leading some offerors and carriers to inquire if smaller lithium cells and batteries packed with equipment are subject to the UN performance packaging requirements. As a result, in this final rule, we are revising paragraph (c) to clarify smaller lithium cells and batteries are excepted from the entirety of UN performance packaging requirements in paragraphs (b)(3)(ii) and (b)(3)(iii) while also removing the reference to (b)(4) because it does not contain UN performance packaging requirements.

5. In paragraph (c)(1)(v) applicable to markings for lithium metal batteries, incorrect references to paragraphs (c)(1)(ii) and (c)(1)(iii) are replaced with correct references to paragraphs (c)(1)(iii) and (c)(1)(iv).
6. Paragraph (c)(2) is revised to clarify that for lithium batteries packed with equipment, either the package containing the batteries may be individually drop tested, or the completed package containing both the batteries and equipment may be subjected to the 1.2 meter drop test. This is consistent with intent of the HM-224F final rule to align the provisions of the HMR with the provisions prescribed in Packing Instruction(s) 966 and 969 of the 2013-2014 edition of the ICAO TI.
7. Paragraph (c)(3) is revised to eliminate redundant requirements for air transportation by moving marking requirements from paragraph (c)(4)(i) to paragraph (c)(3). This revision clarifies that all four of the documentation requirements in (c)(3)(ii)(A)-(D) [now (c)(3)(iii)(A)-(D)] are applicable to air shipments. This revision also clarifies that for air transport both the markings prescribed in (c)(3)(i)(A)-(D) and the air handling mark are not required. Paragraph (c)(3)(i) is revised to clarify that the marking requirements prescribed in (c)(3)(i)(A)-(D) are applicable for transport by highway, rail, and vessel and may be alternatively satisfied by use of the air handling mark. In addition, by consolidating the small battery

hazard communication requirements in paragraph (c)(3), it is clarified that the handling marking is not required for a package containing button cell batteries installed in equipment (including circuit boards), or no more than four lithium cells or two lithium batteries installed in the equipment. Although this particular exception is unchanged in paragraph (c)(3), there was some confusion on the part of shippers and carriers as to whether the exception was also intended to apply to air shipments as there was previously no clear exception from the requirement in paragraph (c)(4) to apply the air handling mark for batteries installed in equipment.

8. As required by the previous paragraph (c)(4)(i)(C) [now (c)(3)(ii)(C)], the asterisk on the air handling mark must be replaced with the phrase “lithium ion battery” and/or “Lithium metal battery.” Consistent with the ICAO TI, there is no requirement in the previous paragraph (c)(4)(i)(C) [now (c)(3)(ii)(C)], to indicate that the word “cell” is marked on a package containing lithium “cells,” meaning that word “battery” is used to describe packages containing both lithium cells and batteries. This differs from (c)(3)(i)(A), which requires an indication that the package contains “lithium metal” or “lithium ion” cells or batteries, as appropriate. As discussed in the HM-224F preamble (79 FR 46022, third column) we stated the lithium-battery handling label that is required for air transport may be used by all modes provided it conveys the information required by the HMR. The present air transportation requirements for the lithium battery handling marking in both the HMR and the ICAO only require use of the word “battery” (even for packages containing cells). Therefore a “lithium battery handling marking” that would be compliant when transporting lithium cells by air would not satisfy the hazard communication requirement for other modes that require an indication the package contains “cells”. As a result, we are revising (c)(3)(i)(A) to clarify that the word “battery” may be used to satisfy the marking requirements of packages containing “cells.”
9. Paragraph (c)(3)(i)(A) applicable to marking requirements for excepted lithium batteries is revised to clarify that a package must be marked with an indication that it contains “lithium metal” and/or “lithium ion” batteries and is not limited to one or the other type and for consistency with (c)(4)(i)(C) [now (c)(3)(ii)(C)], which contains the text “and/or.”

10. Paragraph (c)(4)(ii) [now (c)(4)(iii)] is revised by removing the redundant documentation requirements already required in paragraph (c)(3).
11. Paragraph (c)(4)(v) [now (c)(4)(vi)], is revised to clarify that it does not apply to lithium cells or batteries packed with or contained in equipment. When transported by air, for small lithium cells or batteries packed with or contained in equipment, the quantity limitations are prescribed in (c)(4)(iii) [now (c)(4)(iv)].
12. In paragraph (e)(3), the reference to (b)(4) is replaced with (b)(3)(iii) as (b)(4) does not contain UN performance packaging requirements.
13. Paragraph (f)(3)(iii) is revised by removing the word “large” from the phrase “single large battery” as the term “large” refers to the package, not the battery.

Section 173.199

This section prescribes the packaging requirements and exceptions for Category B infectious substances. In the HM-215M final rule, paragraph (a)(5) was revised for consistency with the UN Model Regulations. In making the revision, the square-on-point marking graphic “UN3373” was inadvertently removed. In this final rule, the graphic is reinstated in paragraph (a)(5).

Section 173.302

This section specifies requirements for the filling of cylinders with non-liquefied (permanent) compressed gases. In the HM-215M final rule, PHMSA adopted the provisions in UN Model Regulations for the transportation of adsorbed gases in cylinders. PHMSA amended the title of this section and paragraph (a) to include and specify requirements for the transportation of adsorbed gases. Due to a regulatory instruction error, the revisions to paragraph (a) were not included in the CFR. In this final rule, PHMSA is adding the revisions to paragraph (a) as intended in the HM-215M final rule as published in 80 FR 1161, instruction number 48.

Section 173.309

Section 173.309 prescribes requirements for fire extinguishers. In the HM-215M final rule, provisions for transporting large fire extinguishers unpackaged were added in a new paragraph (e). Paragraph (e)(2) requires that the valves must be protected in accordance with § 173.301(c)(2)(i), (ii), (iii) or (v). The references to § 173.301(c)

are incorrect as the applicable requirements are located in § 173.301b(c). In this final rule, PHMSA is revising paragraph (e)(2) to correctly reference § 173.301b(c)(2)(i), (ii), (iii) or (v).

Section 173.314

This section prescribes requirements for transporting compressed gases in tank cars and multi-unit tank cars. In paragraph (k)(2), the basic description for chlorine is in a sequence that is no longer authorized under the HMR. In this final rule, the sequence is revised by placing the identification number at the beginning of the sequence.

Section 173.334

Section 173.334 prescribes packaging and filling requirements for organic phosphates mixed with compressed gas. In paragraph (b), the word “education” is replaced with the word “education,” as originally intended.

Section 173.417

Section 173.417 discusses authorized fissile materials packages. The HM-250 final rule removed paragraph (b)(3) leaving the preceding paragraph (b)(2) ending with “; or”. In this final rule, “;or” is replaced with a period (“.”).

Section 173.420

Section 173.420 prescribes the transport conditions for uranium hexafluoride. The HM-250 final rule removed and reserved paragraph (a)(2)(ii) which ended in “; or”. In this rule, the word “or” is added to the end of the preceding paragraph (a)(2)(i). In addition, in this rule, paragraph (d)(2) is amended to correct an error made in HM-215M by replacing references to §§ 173.421(a)(1) and (a)(4) with §§ 173.421(a) and (d).

Section 173.422

Section 173.422 prescribes additional requirements for excepted packages containing Class 7 (radioactive) materials. Paragraph (c) requires the reporting of decontamination in accordance with §§ 174.750, 175.700(b), or 176.710 dependent on the mode of transportation. In a final rule published under Docket Number RSPA-02–11654 (HM–228) [71 FR 14586], the reporting requirements in § 175.700(b) were moved to § 175.705. In this final rule,

PHMSA is revising paragraph (c) by replacing the reference to § 175.700(b) with § 175.705.

Section 173.423

Section 173.423 prescribes requirements for multiple hazard limited quantity Class 7 materials. In the HM-250 final rule, the paragraphs contained in § 173.421 were renumbered. Multiple sections referencing the previous paragraph numbering of § 173.421 were not amended in the HM-250 rulemaking. In this final rule, PHMSA is revising paragraph (a)(2) to reflect the appropriate paragraphs of § 173.421.

Section 173.426

Section 173.426 prescribes requirements for excepted packages for articles containing natural uranium or thorium. In the HM-250 final rule, the paragraphs contained in § 173.421 were renumbered. Multiple sections referencing the previous paragraph numbering of § 173.421 were not amended in the HM-250 rulemaking. In this final rule, PHMSA is revising paragraph (c) to reflect the appropriate paragraphs of § 173.421.

Section 173.428

This section provides transport requirements for empty Class 7 (radioactive) materials packaging. In the HM-250 final rule, the paragraphs contained in § 173.421 were renumbered. Multiple sections referencing the previous paragraph numbering of § 173.421 were not amended in the HM-250 rulemaking. In this final rule, PHMSA is revising paragraph (a) to reflect the appropriate paragraphs of § 173.421.

Section 173.436

This section contains exempt material activity concentrations and exempt consignment activity limits for radionuclides. In the HM-250 final rule, footnote b, which provides a list of parent nuclides and their progeny listed in secular equilibrium was amended. For the entry “RA-226,” Bi-214 was listed twice. In this final rule, PHMSA is removing the duplicate progeny entry of Bi-214 from footnote b.

Part 175

Section 175.10

Section 175.10 specifies the conditions for which passengers, crew members, or an operator may carry hazardous materials aboard a passenger aircraft. In the HM-224F final rule, Watt-hours were adopted in place of

“equivalent lithium content,” as the measure of power (or size) of a lithium ion cell or battery (see 79 FR 46012 and 46015). In paragraph (a)(17)(v), applicable to wheelchairs or other mobility aids powered by lithium ion batteries the phrase “equivalent lithium content” was inadvertently retained. We are revising § 175.10(a)(17)(v)(D) and (E) by replacing references to equivalent lithium content with Watt-hours. The revision states that the battery must not exceed 300 Watt-hours and that a maximum of one spare battery not exceeding 300 Watt-hours or two spares not exceeding 160 Watt-hours each may be carried.

Part 176

Section 176.104

Section 176.104 prescribes requirements for loading and unloading Class 1 materials. Paragraph (c)(3) contains a grammatical error stating the word “hoods” instead of “hooks.” In this final rule, we are correcting this grammatical error.

Section 176.116

Section 176.116 prescribes the general stowage conditions for Class 1 explosive materials. Paragraph (e)(3) contains a reference to the Class A60 standard that is defined in 46 CFR 72.05-10(a)(1). However, 46 CFR 72.05-10(a)(1) does not exist and, therefore, does not provide the definition for the Class A60 standard. In this final rule, the citation is corrected to read 46 CFR 72.05-10(c)(1).

Section 176.905

Section 176.905 prescribes specific requirements for motor vehicles or mechanical equipment powered by internal combustion engines that are offered for transportation and transported by vessel. In the HM-215M final rule, PHMSA aligned the conditions for exception from the subchapter in paragraph (i) with those recently adopted by the IMO. Due to an incorrect regulatory instruction, the paragraph (i) introductory text was inadvertently removed. In this final rule, PHMSA is reinstating the paragraph (i) introductory text.

Part 177

Section 177.838

Section 177.838 prescribes specific loading and unloading requirements for Class 4 (flammable solid)

materials, Class 5 (oxidizing) materials, and Division 4.2 (pyrophoric liquid) materials when carried by public highway. In this final rule, PHMSA is revising the section heading by replacing the word “pyroforic” with the correct spelling “pyrophoric.” In addition, paragraph (g) of § 177.838 is revised to clarify that the limitation that a motor vehicle may only contain 45.4 kg (100 pounds) or less net mass of material described as “Smokeless powder for small arms, Division 4.1” also includes “Black powder for small arms, Division 4.1”. This clarification will provide consistency with the requirements and limitations of §§ 173.170 and 173.171 which respectively authorize Black powder for small arms that has been classed in Division 1.1 and Smokeless powder for small arms that has been classed as Division 1.3 or Division 1.4 to be reclassified as a Division 4.1 material for domestic transportation by highway, provided certain conditions are met. Sections 173.170 and 173.171 further provide, respectively, that the total quantity of the re-classed black powder or smokeless powder in one motor vehicle may not exceed 45.4 kg (100 pounds) net mass.

Part 178

Section 178.71

Section 178.71 prescribes specifications for UN pressure receptacles. We are revising paragraph (p)(15) to correct a typographical error by replacing the “l” in “ISO 11114-1” with an “I” to read “ISO 11114-1” .

Section 178.801

Section 178.801 sets forth recordkeeping requirements for IBC packaging manufacturers, design type testers, and periodic retesters. In paragraph (l)(2), subparagraph (vii) was inadvertently skipped when the paragraph was revised in a final rule published under Docket Number PHMSA–2013-0041 (HM–215K, HM–215L, HM–218G and HM–219) [77 FR 65453]. We are revising paragraph (l)(2) to correct the subparagraph numbering sequence.

Part 180

Section 180.213

This section prescribes requirements for requalification markings for cylinders. We are revising paragraph (f)(1) to correct the reference to § 173.309(b) to read “§ 173.309(a).”

III. Regulatory Analyses and Notices

A. Statutory/Legal Authority for this Rulemaking

This final rule is published under authority of 49 U.S.C. 5103(b), which authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. The purpose of this final rule is to remove inadvertent errors in the hazardous materials table, grammatical and typographical errors, and, in response to requests for clarification, improve the clarity of certain provisions in the Hazardous Materials Regulations. The changes made in this final rule are considered non-substantive and this is published as a direct final rule.

B. Executive Orders 12866 and 13563 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This rule is not significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). Additionally, E.O. 13563 supplements and reaffirms E.O. 12866, stressing that, to the extent permitted by law, an agency rulemaking action must be based on benefits that justify its costs, impose the least burden, consider cumulative burdens, maximize benefits, use performance objectives, and assess available alternatives. This final rule does not impose new or revised requirements for hazardous materials shippers or carriers; therefore, it is not necessary to prepare a regulatory impact analysis.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria in Executive Order 13132 (“Federalism”). This final rule does not adopt any regulation that: (1) has substantial direct effects on the states, the relationship between the national government and the states, or the distribution of power and responsibilities among the various levels of government; or (2) imposes substantial direct compliance costs on state and local governments. PHMSA is not aware of any state, local, or Indian tribe requirements that would be preempted by correcting editorial errors and making minor regulatory changes. This final rule does not have sufficient federalism impacts to warrant the preparation of a federalism assessment.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs on Indian tribal governments, and does not preempt tribal law, the funding and consultation requirements of Executive Order 13175 do not apply, and a tribal summary impact statement is not required.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

This final rule will not have a significant economic impact on a substantial number of small entities. This rule makes minor editorial changes that will not impose any new requirements on persons subject to the HMR; thus, there are no direct or indirect adverse economic impacts for small units of government, businesses, or other organizations.

F. Executive Order 13563 Improving Regulation and Regulatory Review

Executive Order 13563 supplements and reaffirms the principles, structures, and definitions governing regulatory review that were established in Executive Order 12866 Regulatory Planning and Review of September 30, 1993. In addition, Executive Order 13563 specifically requires agencies to: (1) involve the public in the regulatory process; (2) promote simplification and harmonization through interagency coordination; (3) identify and consider regulatory approaches that reduce burden and maintain flexibility; and (4) ensure the objectivity of any scientific or technological information used to support regulatory action; consider how to best promote retrospective analysis to modify, streamline, expand, or repeal existing rules that are outmoded, ineffective, insufficient, or excessively burdensome.

A complete review of the existing HMR led to the identification of various minor errors in the HMR.

The correction of these errors will clarify current text while maintaining the intent of the regulations affected. This final rule is designed to address those errors by making non-substantive changes to the HMR such as editorial changes, spelling corrections, removal of transitional requirements that are no longer applicable and formatting modifications. This final rule corrects these errors but does not require the application of Executive

Order 13563. The final rule does however clarify the regulatory text thus improving the regulations.

G. Paperwork Reduction Act

This final rule imposes no new information collection requirements.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

I. Unfunded Mandates Reform Act

This rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of \$141.3 million or more to either state, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objectives of the rule.

J. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), and implementing regulations by the Council on Environmental Quality (40 CFR part 1500) require Federal agencies to consider the consequences of Federal actions and prepare a detailed statement on actions that significantly affect the quality of the human environment.

The purpose of this rulemaking is to correct editorial errors, make minor regulatory changes and, in response to requests for clarification, improve the clarity of certain provisions in the HMR. The intended effect of this rule is to enhance the accuracy and reduce misunderstandings of the regulations. The amendments contained in this rule are non-substantive changes and do not impose new requirements. Therefore, PHMSA has determined that the implementation of this final rule will not have any significant impact on the quality of the human environment.

K. Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association,

business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477), which may be viewed at <http://www.dot.gov/privacy>.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 177

Hazardous materials transportation, Loading and unloading, Segregation and separation.

49 CFR Part 178

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Incorporation by reference, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA is amending 49 CFR Chapter I as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101-5128, 44701; Pub. L. 101-410 section 4 (28 U.S.C. 2461 note); Pub. L. 104-134, section 31001; 49 CFR 1.81 and 1.97.

2. In § 171.22, revise paragraph (f)(4) to read as follows:

§ 171.22 Authorization and conditions for the use of international standards and regulations.

* * * * *

(f) * * *

(4) Each person who provides for transportation or receives for transportation (see §§174.24, 175.30, 176.24 and 177.817 of this subchapter) a shipping paper must retain a copy of the shipping paper or an electronic image thereof that is accessible at or through its principal place of business in accordance with §172.201(e) of this subchapter.

* * * * *

3. In § 171.23, revise paragraphs (a)(4)(ii) and (a)(5) introductory text to read as follows:

§ 171.23 Requirements for specific materials and packagings transported under the ICAO Technical Instructions, IMDG Code, Transport Canada TDG Regulations, or the IAEA Regulations.

* * * * *

(a) * * *

(4) * * *

(ii) In addition to other requirements of this subchapter, the maximum filling density, service pressure, and pressure relief device for each cylinder conform to the requirements of this part for the gas involved; and

* * * * *

(5) Cylinders not equipped with pressure relief devices: A DOT specification or a UN cylinder manufactured, inspected, tested and marked in accordance with part 178 of this subchapter and otherwise conforms to the requirements of part 173 of this subchapter for the gas involved, except that the cylinder is not equipped with a pressure relief device may be filled with a gas and offered for transportation and transported for export if the following conditions are met:

* * * * *

4. In § 171.24, revise paragraph (c) to read as follows:

§ 171.24 Additional requirements for the use of the ICAO Technical Instructions.

* * * * *

(c) Highway transportation. For transportation by highway prior to or after transportation by aircraft, a shipment must conform to the applicable requirements of part 177 of this subchapter, and the motor vehicle must be placarded in accordance with subpart F of part 172 of this subchapter.

* * * * *

PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS

5. The authority citation for part 172 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

6. In § 172.101, the Hazardous Materials Table is amended by removing the entries under “[REMOVE]”, adding entries under “[ADD]”, and revising entries under [REVISE]” in the appropriate alphabetical sequence to read as follows:

§ 172.101 Purpose and use of hazardous materials table.

* * * * *

Sym- bols	Hazardous materials descrip- tions and proper shipping names	Hazard class or division	Identi- fication Numbers	PG	Label Codes	Special Provisions (\$ 172.102)	(8)			(9)		(10)	
							Packaging (\$ 173.***)			Quantity limitations (see §§ 173.27 and 175.75)		Vessel stowage	
							Excep- tions	Non- bulk	Bulk	Passenger aircraft/rail	Cargo air- craft only	Loca- tion	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	[REMOVE]												
	*		*		*		*		*		*		*
	N-Aminoethyl piperazine	8	UN2815	III	8	IB3, T4, TP1	154	203	241	5 L	60 L	A	12, 25
	*		*		*		*		*		*		*
	Ammonia solutions, relative density less than 0.880 at 15 degrees C in water, with more than 35 percent but not more than 50 percent ammonia	2.2	UN2073		2.2	N87	306	304	314, 315	Forbidden	150 kg	E	40, 52, 57
	Ammonia solutions, relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia	8	UN2672	III	8	336, IB3, IP8, T7, TP1	154	203	241	5L	60L	A	40, 52, 85
	*		*		*		*		*		*		*
	Batteries, dry, containing potassium hydroxide solid, electric storage	8	UN3028		8	237	None	213	None	25 kg	230 kg	A	52
	*		*		*		*		*		*		*
	Environmentally hazardous substances, solid, n.o.s	9	UN3077	III	9	8,146, 335, A112, B54, B120, IB8, IP3, N20, N91, T1, TP33	155	213	240	No Limit	No Limit	A	
	*		*		*		*		*		*		*
	Paint, corrosive, flammable (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base)	8	UN3470	II	8, 3	367, IB2, T7, TP2, TP8, TP28	154	202	243	1 L	30 L	B	40
	*		*		*		*		*		*		*
	Printing ink, flammable or Printing ink related material (including printing ink thinning or reducing compound), flammable	3	UN1210	I	3	367, T11, TP1, TP8	150	173	243	1 L	30 L	E	
				II	3	149, 367, IB2, T4, TP1, TP8	150	173	242	5 L	60 L	B	
				III	3	367, B1, IB3, T2, TP1	150	173	242	60 L	220 L	A	

	*		*		*		*		*		*		*
	Trinitrobenzene, <u>dry or wetted with less than 30 percent water, by mass</u>	1.1D	UN0214	II	1.1D		None	62	None	Forbidden	Forbidden	4	25
	Trinitrobenzene, <u>dry or wetted with less than 30 percent water, by mass</u>	1.1D	UN0214	II	1.1D		None	62	None	Forbidden	Forbidden	04	25
	Trinitrobenzene, <u>wetted with not less than 30 percent water, by mass</u>	4.1	UN1354	I	4.1	23, A2, A8, A19, N41	None	211	None	0.5 kg	0.5 kg	E	28, 36
	*		*		*		*		*		*		*
	[ADD]												
	*		*		*		*		*		*		*
	N-Aminoethylpiperazine	8	UN2815	III	8	IB3, T4, TP1	154	203	241	5 L	60 L	A	12, 25
	*		*		*		*		*		*		*
	Ammonia solution, <u>relative density less than 0.880 at 15 degrees C in water, with more than 35 percent but not more than 50 percent ammonia</u>	2.2	UN2073		2.2	N87	306	304	314, 315	Forbidden	150 kg	E	40, 52, 57
	Ammonia solution, <u>relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia</u>	8	UN2672	III	8	336, IB3, IP8, T7, TP1	154	203	241	5L	60L	A	40, 52, 85
	*		*		*		*		*		*		*
	Batteries, dry, containing potassium hydroxide solid, <u>electric storage</u>	8	UN3028		8	237	None	213	None	25 kg	230 kg	A	52
	*		*		*		*		*		*		*
G	Environmentally hazardous substance, solid, n.o.s	9	UN3077	III	9	8, 146, 335, 384 A112, B54, B120, IB8, IP3, N20, N91, T1, TP33	155	213	240	No Limit	No Limit	A	
	*		*		*		*		*		*		*
	Paint, corrosive, flammable (<u>including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler, and liquid lacquer base</u>)	8	UN3470	II	8, 3	367, IB2, T7, TP2, TP8, TP28	154	202	243	1 L	30 L	B	40
	*		*		*		*		*		*		*
	Printing ink, <u>flammable</u> or Printing ink related material (<u>including printing ink thinning or reducing compound</u>), <u>flammable</u>	3	UN1210	I	3	367, T11, TP1, TP8	150	173	243	1 L	30 L	E	

				II	3	149, 367, IB2, T4, TP1, TP8	150	173	242	5 L	60 L	B	
				III	3	367, B1, IB3, T2, TP1	150	173	242	60 L	220 L	A	
	*		*		*		*		*		*		*
	Trinitrobenzene, <u>dry or wetted with less than 30 percent water, by mass</u>	1.1D	UN0214	II	1.1D		None	62	None	Forbidden	Forbidden	04	25
	Trinitrobenzene, wetted <u>with not less than 30 percent water, by mass</u>	4.1	UN1354	I	4.1	23, A2, A8, A19, N41	None	211	None	0.5 kg	0.5 kg	E	28, 36
	*		*		*		*		*		*		*
	[REVISE]												
	*		*		*		*		*		*		*
+	Aminophenols (<u>o</u> -, <u>m</u> -, <u>p</u> -)	6.1	UN2512	III	6.1	IB8, IP3, T1, TP33	153	213	240	100 kg	200 kg	A	
	*		*		*		*		*		*		*
	Cells, containing sodium	4.3	UN3292		4.3		189	189	189	25 kg	No limit	A	
	*		*		*		*		*		*		*
D G	Combustible liquid, n.o.s.	Comb liq	NA1993	III	None	IB3, T1, TP1	150	203	241	60 L	220 L	A	
	*		*		*		*		*		*		*
	Lithium ion batteries <u>including lithium ion polymer batteries</u>	9	UN3480		9	A51, A54	185	185	185	5 kg	35 kg	A	
	*		*		*		*		*		*		*
	Lithium metal batteries <u>including lithium alloy batteries</u>	9	UN3090		9	A54	185	185	185	Forbidden	35 kg	A	
	*		*		*		*		*		*		*
G	Organometallic substance, liquid, water-reactive	4.3	UN3398	I	4.3	T13, TP2, TP7, TP36, TP47	None	201	244	Forbidden	1 L	D	13, 40, 52, 148
				II	4.3	IB1, IP2, T7, TP2, TP7, TP36, TP47	None	202	243	1 L	5 L	D	13, 40, 52, 148
				III	4.3	IB2, IP4, T7, TP2, TP7,	None	203	242	5 L	60 L	E	13, 40, 52, 148

						TP36, TP47							
	*		*		*		*		*		*		*
G	Oxidizing solid, corrosive, n.o.s	5.1	UN3085	I	5.1, 8	62	None	211	242	1 kg	15 kg	D	13, 56, 58, 138
				II	5.1, 8	62, IB6, IP2, T3, TP33	152	212	242	5 kg	25 kg	B	13, 34, 56, 58, 138
				III	5.1, 8	62, IB8, IP3, T1, TP33	152	213	240	25 kg	100 kg	B	13, 34, 56, 58, 138
	*		*		*		*		*		*		*
I	Petroleum sour crude oil, flammable, toxic	3	UN3494	I	3, 6.1	343, T14, TP2, TP13	None	201	243	Forbidden	30 L	D	40
				II	3, 6.1	343, IB2, T7, TP2	150	202	243	1 L	60 L	D	40
				III	3, 6.1	343, IB3, T4, TP1	150	203	242	60 L	220 L	C	40
	*		*		*		*		*		*		*
G	Self-heating solid, organic, n.o.s	4.2	UN3088	II	4.2	IB6, IP2, T3, TP33	None	212	241	15 kg	50 kg	C	
				III	4.2	IB8, IP3, T1, TP33, B116	None	213	241	25 kg	100 kg	C	
	*		*		*		*		*		*		*
G	Self-reactive solid type B	4.1	UN3222	II	4.1	53	151	224	None	Forbidden	Forbidden	D	25, 52, 53, 127
	*		*		*		*		*		*		*

* * * * *

7. In § 172.102, in paragraph (c)(1), revise special provisions 338 and 369 to read as follows:

§ 172.102 Special Provisions.

* * * * *

(c) * * *

(1) * * *

338 Life Saving appliances, self-inflating transported by motor vehicle only between an U.S. Coast Guard approved inflatable life raft servicing facility and a vessel are only subject to the following requirements:

- a. Prior to repacking into the life-saving appliance, an installed inflation cylinder must successfully meet and pass all inspection and test criteria and standards of the raft manufacturer and the vessel Flag State requirements for cylinders installed as part of life-saving appliances, self-inflating (UN2990) used on marine vessels. Additionally, each cylinder must be visually inspected in accordance with CGA pamphlet, CGA C-6 (incorporated by reference, see § 171.7). A current copy of CGA pamphlet, CGA C-6 must be available at the facility servicing the life-saving appliance.
- b. An installed inflation cylinder that requires recharging must be filled in accordance with § 173.301(l).
- c. Every installed inflation cylinder, as associated equipment of the life-saving appliance, must be packed within the protective packaging of the life raft and the life raft itself must otherwise be in compliance with § 173.219.
- d. The serial number for each cylinder must be recorded as part of the life-saving appliance service record by the U.S. Coast Guard-approved servicing facility.

* * * * *

369 In accordance with § 173.2a, this radioactive material in an excepted package possessing corrosive properties is classified in Class 8 with a radioactive material subsidiary risk. Uranium hexafluoride may be classified under this entry only if the conditions of §§ 173.420(a)(4) and (a)(6), 173.420(d), 173.421(b) and (d), and, for fissile-excepted material, the conditions of 173.453 are met. In addition to the provisions applicable to the transport

of Class 8 substances, the provisions of §§ 173.421(c), and 173.443(a) apply. In addition, packages shall be legibly and durably marked with an identification of the consignor, the consignee, or both. No Class 7 label is required to be displayed. The consignor shall be in possession of a copy of each applicable certificate when packages include fissile material excepted by competent authority approval. When a consignment is undeliverable, the consignment shall be placed in a safe location and the appropriate competent authority shall be informed as soon as possible and a request made for instructions on further action. If it is evident that a package of radioactive material, or conveyance carrying unpackaged radioactive material, is leaking, or if it is suspected that the package, or conveyance carrying unpackaged material, may have leaked, the requirements of § 173.443(e) apply.

* * * * *

8. In § 172.202, revise paragraph (d) to read as follows:

§ 172.202 Description of hazardous material on shipping papers.

* * * * *

(d) Technical and chemical group names may be entered in parentheses between the proper shipping name and hazard class or following the basic description. An appropriate modifier, such as “contains” or “containing,” and/or the percentage of the technical constituent may also be used. For example: “UN 1993, Flammable liquids, n.o.s. (contains Xylene and Benzene), 3, II”.

* * * * *

9. In § 172.203, revise paragraph (k)(1) to read as follows:

§ 172.203 Additional description requirements.

* * * * *

(k) * * *

(1) If a hazardous material is a mixture or solution of two or more hazardous materials, the technical names of at least two components most predominately contributing to the hazards of the mixture or solution must be entered on the shipping paper as required by paragraph (k) of this section. For example, “UN 2924, Flammable liquid, corrosive, n.o.s., 3 (8), II (contains Methanol, Potassium hydroxide)”.

* * * * *

§ 172.502 [Amended]

10. In § 172.502, remove paragraph (b)(3).

11. In § 172.704, revise paragraph (e)(2) to read as follows:

§ 172.704 Training requirements.

* * * * *

(e) * * *

(2) A railroad maintenance-of-way employee or railroad signalman, who does not perform any function subject to the requirements of this subchapter, is not subject to the training requirements of paragraphs (a)(2), (a)(4), or (a)(5) of this section.

PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

12. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

13. In § 173.4, revise paragraph (b) to read as follows:

§ 173.4 Small quantities for highway and rail.

* * * * *

(b) A package containing a Class 7 (radioactive) material also must conform to the requirements of §173.421(a) through (e), §173.424(a) through (g), or §173.426(a) through (c) as applicable.

* * * * *

§173.8 [Amended]

14. In § 173.8, remove and reserve paragraph (a).

15. In § 173.25, revise paragraph (a)(4) to read as follows:

§ 173.25 Authorized packagings and overpacks.

(a) * * *

(4) The overpack is marked with the word “OVERPACK” when specification packagings are required, or

for Class 7 (radioactive) material when a Type A, Type B(U), Type B(M) or industrial package is required. The “OVERPACK” marking is not required when the required markings representative of each package type contained in the overpack are visible from outside of the overpack. The lettering on the “OVERPACK” marking must be at least 12 mm (0.5 inches) high.

(i) Transitional exception. A marking in conformance with the requirements of this paragraph in effect on December 31, 2014, may continue to be used until December 31, 2016.

(ii) For domestic transportation, an overpack marked prior to January 1, 2017 and in conformance with the requirements of this paragraph in effect on December 31, 2014, may continue in service until the end of its useful life.

* * * * *

16. In § 173.127, paragraph (b)(2) is added to read as follows:

§ 173.127 Class 5, Division 5.1—Definition and assignment of packing groups.

* * * * *

(b) * * *

(2) The packing group of a Division 5.1 material which is a liquid shall be assigned using the following criteria:

(i) Packing Group I for:

(A) Any material which spontaneously ignites when mixed with cellulose in a 1:1 ratio; or

(B) Any material which exhibits a mean pressure rise time less than the pressure rise time of a 1:1 perchloric acid (50 percent)/cellulose mixture.

(ii) Packing Group II, any material which exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 aqueous sodium chlorate solution (40 percent)/cellulose mixture and the criteria for Packing Group I are not met.

(iii) Packing Group III, any material which exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 nitric acid (65 percent)/cellulose mixture and the criteria for Packing Group I and II are not met.

17. In § 173.156, revise paragraphs (b)(2)(iv) and (v) to read as follows:

§ 173.156 Exceptions for limited quantity and ORM.

* * * * *

(b) * * *

(2) * * *

(iv) The package conforms to the general packaging requirements of subpart B of this part; and

(v) The maximum net quantity of hazardous material permitted on one palletized unit is 250 kg (550 pounds).

18. Revise § 173.185 to read as follows:

§ 173.185 Lithium cells and batteries.

As used in this section, lithium cell(s) or battery(ies) includes both lithium metal and lithium ion chemistries. Equipment means the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation.

(a) Classification. (1) Each lithium cell or battery must be of the type proven to meet the criteria in part III, sub-section 38.3 of the UN Manual of Tests and Criteria (IBR; see §171.7 of this subchapter). Lithium cells and batteries are subject to these tests regardless of whether the cells used to construct the battery are of a tested type.

(i) Cells and batteries manufactured according to a type meeting the requirements of sub-section 38.3 of the UN Manual of Tests and Criteria, Revision 3, Amendment 1 or any subsequent revision and amendment applicable at the date of the type testing may continue to be transported, unless otherwise provided in this subchapter.

(ii) Cell and battery types only meeting the requirements of the UN Manual of Tests and Criteria, Revision 3, are no longer valid. However, cells and batteries manufactured in conformity with such types before July 2003

may continue to be transported if all other applicable requirements are fulfilled.

(2) Each person who manufactures lithium cells or batteries must create a record of satisfactory completion of the testing required by this paragraph prior to offering the lithium cell or battery for transport and must:

(i) Maintain this record for as long as that design is offered for transportation and for one year thereafter;
and

(ii) Make this record available to an authorized representative of the Federal, state or local government upon request.

(3) Except for cells or batteries meeting the requirements of paragraph (c) of this section, each lithium cell or battery must:

(i) Incorporate a safety venting device or be designed to preclude a violent rupture under conditions normally incident to transport;

(ii) Be equipped with effective means of preventing external short circuits; and

(iii) Be equipped with an effective means of preventing dangerous reverse current flow (e.g., diodes or fuses) if a battery contains cells, or a series of cells that are connected in parallel.

(b) Packaging. (1) Each package offered for transportation containing lithium cells or batteries, including lithium cells or batteries packed with, or contained in, equipment, must meet all applicable requirements of subpart B of this part.

(2) Lithium cells or batteries, including lithium cells or batteries packed with, or contained in, equipment, must be packaged in a manner to prevent:

(i) Short circuits;

(ii) Movement within the outer package; and

(iii) Accidental activation of the equipment.

(3) For packages containing lithium cells or batteries offered for transportation:

(i) The lithium cells or batteries must be placed in non-metallic inner packagings that completely enclose the cells or batteries, and separate the cells or batteries from contact with equipment, other devices, or conductive materials (e.g., metal) in the packaging.

(ii) The inner packagings containing lithium cells or batteries must be placed in one of the following packagings meeting the requirements of part 178, subparts L and M, of this subchapter at the Packing Group II level:

(A) Metal (4A, 4B, 4N), wooden (4C1, 4C2, 4D, 4F), fiberboard (4G), or solid plastic (4H1, 4H2) box;

(B) Metal (1A2, 1B2, 1N2), plywood (1D), fiber (1G), or plastic (1H2) drum;

(C) Metal (3A2, 3B2) or plastic (3H2) jerrican.

(iii) When packed with equipment, lithium cells or batteries must:

(A) Be placed in inner packagings that completely enclose the cell or battery, then placed in an outer packaging. The completed package for the cells or batteries must meet the Packing Group II performance requirements as specified in paragraph (b)(3)(ii) of this section; or

(B) Be placed in inner packagings that completely enclose the cell or battery, then placed with equipment in a package that meets the Packing Group II performance requirements as specified in paragraph (b)(3)(ii) of this section.

(4) When lithium cells or batteries are contained in equipment:

(i) The outer packaging, when used, must be constructed of suitable material of adequate strength and design in relation to the capacity and intended use of the packaging, unless the lithium cells or batteries are afforded equivalent protection by the equipment in which they are contained;

(ii) Equipment must be secured against movement within the outer packaging and be packed so as to prevent accidental operation during transport; and

(iii) Any spare lithium cells or batteries packed with the equipment must be packaged in accordance with paragraph (b)(3) of this section.

(5) Lithium batteries that weigh 12 kg (26.5 pounds) or more and have a strong, impact-resistant outer casing and assemblies of such batteries, may be packed in strong outer packagings; in protective enclosures (for example, in fully enclosed or wooden slatted crates); or on pallets or other handling devices, instead of packages meeting the UN performance packaging requirements in paragraphs (b)(3)(ii) and (b)(3)(iii) of this section. Batteries or battery assemblies must be secured to prevent inadvertent movement, and the terminals may not support the weight of other superimposed elements. Batteries or battery assemblies packaged in accordance with this paragraph are not permitted for transportation by passenger-carrying aircraft, and may be transported by cargo aircraft only if approved by the Associate Administrator.

(6) Except for transportation by aircraft, the following rigid large packagings are authorized for a single battery, including for a battery contained in equipment, meeting provisions in paragraphs (b)(1) and (2) of this section and the requirements of part 178, subparts P and Q, of this subchapter at the Packing Group II level:

- (i) Metal (50A, 50B, 50N);
- (ii) Rigid plastic (50H);
- (iii) Wooden (50C, 50D, 50F);
- (iv) Rigid fiberboard (50G).

(c) Exceptions for smaller cells or batteries. Other than as specifically stated below, a package containing lithium cells or batteries, or lithium cells or batteries packed with, or contained in, equipment, that meets the conditions of this paragraph is excepted from the requirements in subparts C through H of part 172 of this subchapter and the UN performance packaging requirements in paragraphs (b)(3)(ii) and (iii) of this section under the following conditions and limitations.

- (1) Size limits. (i) The Watt-hour (Wh) rating may not exceed 20 Wh for a lithium ion cell or 100 Wh for a

lithium ion battery. After December 31, 2015, each lithium ion battery subject to this provision must be marked with the Watt-hour rating on the outside case.

(ii) The lithium content may not exceed 1 g for a lithium metal cell or 2 g for a lithium metal battery.

(iii) Except when lithium metal cells or batteries are packed with or contained in equipment in quantities not exceeding 5 kg net weight, the outer package that contains lithium metal cells or batteries must be marked: “PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT” or “LITHIUM METAL BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT”, or labeled with a “CARGO AIRCRAFT ONLY” label specified in §172.448 of this subchapter.

(iv) For transportation by highway or rail only, the lithium content of the cell and battery may be increased to 5 g for a lithium metal cell or 25 g for a lithium metal battery and 60 Wh for a lithium ion cell or 300 Wh for a lithium ion battery provided the outer package is marked: “LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD AIRCRAFT AND VESSEL.”

(v) The marking specified in paragraphs (c)(1)(iii) and (iv) of this section must have a background of contrasting color, and the letters in the marking must be:

(A) At least 6 mm (0.25 inch) in height on packages having a gross weight of 30 kg (66 pounds) or less, except that smaller font may be used as necessary when package dimensions so require.

(B) At least 12 mm (0.5 inch) in height on packages having a gross weight of more than 30 kg (66 pounds).

(vi) Except when lithium cells or batteries are packed with, or contained in, equipment, each package must not exceed 30 kg (66 pounds) gross weight.

(2) Packaging. Except when lithium cells or batteries are contained in equipment, each package, or the completed package when packed with equipment, must be capable of withstanding a 1.2 meter drop test, in any orientation, without damage to the cells or batteries contained in the package, without shifting of the contents

that would allow battery-to-battery (or cell-to-cell) contact, and without release of the contents of the package.

(3) Hazard communication. Except for a package containing button cell batteries installed in equipment (including circuit boards), or no more than four lithium cells or two lithium batteries installed in the equipment:

(i) For transportation by highway, rail and vessel, the outer package must be marked with the information in the following paragraphs (c)(3)(i)(A) to (D), or the handling marking in paragraph (c)(3)(ii) of this section:

(A) An indication that the package contains “Lithium metal” and/or “Lithium ion” cells or batteries, as appropriate, or alternatively, the word “batteries” may be used for packages containing cells;

(B) An indication that the package is to be handled with care and that a flammable hazard exists if the package is damaged;

(C) An indication that special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary;

(D) A telephone number for additional information.

(ii) For transportation by air, the outer package must be marked with the following handling marking, which is durable, legible, and displayed on a background of contrasting color:



(A) The marking must be not less than 120 mm (4.7 inches) wide by 110 mm (4.3 inches) high except markings of 105 mm (4.1 inches) wide by 74 mm (2.9 inches) high may be used on a package containing lithium batteries when the package is too small for the larger mark;

(B) The symbols and letters must be black and the border must be red; and

(C) The “*” must be replaced by the words “Lithium ion battery” and/or “Lithium metal battery” as appropriate and the “xxx-xxx-xxxx” must be replaced by a telephone number for additional information.

(iii) Each shipment of one or more packages marked in accordance with this paragraph must be accompanied by a document that includes the following:

(A) An indication that the package contains “lithium metal” or “lithium ion” cells or batteries, as appropriate;

(B) An indication that the package is to be handled with care and that a flammable hazard exists if the package is damaged;

(C) An indication that special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and

(D) A telephone number for additional information.

(4) Air transportation. (i) For transportation by aircraft, lithium cells and batteries may not exceed the limits in the following table. The limits on the maximum number of batteries and maximum net quantity of batteries in the following table may not be combined in the same package:

Contents	Lithium metal cells and/or batteries with a lithium content not more than 0.3 g	Lithium metal cells with a lithium content more than 0.3 g but not more than 1g	Lithium metal batteries with a lithium content more than 0.3 g but not more than 2 g	Lithium ion cells and/or batteries with a Watt-hour rating not more than 2.7 Wh	Lithium ion cells with a Watt-hour rating more than 2.7 Wh but not more than 20 Wh	Lithium ion batteries with a Watt-hour rating more than 2.7 Wh but not more than 100 Wh
Maximum number of	No Limit	8 cells	2 batteries	No Limit	8 cells	2 batteries

cells/batteries per package						
Maximum net quantity (mass) per package	2.5 kg	n/a	n/a	2.5 kg	n/a	n/a

(ii) When packages required to bear the handling marking in paragraph (c)(3)(ii) are placed in an overpack, the handling marking must either be clearly visible through the overpack, or the handling marking must also be affixed on the outside of the overpack, and the overpack must be marked with the word “OVERPACK”.

(iii) Each shipment with packages required to bear the handling marking must include an indication on the air waybill of compliance with this paragraph (c)(4) (or the applicable ICAO Packing Instruction), when an air waybill is used.

(iv) For lithium batteries packed with, or contained in, equipment, the number of batteries in each package is limited to the minimum number required to power the piece of equipment, plus two spares, and the total net quantity (mass) of the lithium cells or batteries in the completed package must not exceed 5 kg.

(v) Each person who prepares a package for transport containing lithium cells or batteries, including cells or batteries packed with, or contained in, equipment in accordance with the conditions and limitations in this paragraph, must receive adequate instruction on these conditions and limitations, commensurate with their responsibilities.

(vi) A package that exceeds the number or quantity (mass) limits in the table shown in (c)(4) is subject to all applicable requirements of this subchapter, except that a package containing no more than 2.5 kg lithium metal cells or batteries or 10 kg lithium ion cells or batteries is not subject to the UN performance packaging requirements in paragraphs (b)(3)(ii) of this section when the package displays both the lithium battery handling marking and the Class 9 label. This paragraph does not apply to batteries or cells packed with or contained in equipment.

(d) Lithium cells or batteries shipped for disposal or recycling. A lithium cell or battery, including a lithium

cell or battery contained in equipment, that is transported by motor vehicle to a permitted storage facility or disposal site, or for purposes of recycling, is excepted from the testing and record keeping requirements of paragraph (a) and the specification packaging requirements of paragraph (b)(3) of this section, when packed in a strong outer packaging conforming to the requirements of §§173.24 and 173.24a. A lithium cell or battery that meets the size, packaging, and hazard communication conditions in paragraph (c)(1)-(3) of this section is excepted from subparts C through H of part 172 of this subchapter.

(e) Low production runs and prototypes. Low production runs (i.e., annual production runs consisting of not more than 100 lithium cells or batteries), or prototype lithium cells or batteries transported for purposes of testing, are excepted from the testing and record keeping requirements of paragraph (a) of this section provided:

(1) Except as provided in paragraph (e)(3) of this section, each cell or battery is individually packed in a non-metallic inner packaging, inside an outer packaging, and is surrounded by cushioning material that is non-combustible and non-conductive;

(2) The inner packages containing lithium cells or batteries are packed in one of the following packagings that meet the requirements of part 178, subparts L and M at Packing Group I level.

(i) Metal (4A, 4B, 4N), wooden (4C1, 4C2, 4D, 4F), or solid plastic (4H2) box;

(ii) Metal (1A2, 1B2, 1N2), plywood (1D), or plastic (1H2) drum.

(3) Lithium batteries that weigh 12 kg (26.5 pounds) or more and have a strong, impact-resistant outer casing or assemblies of such batteries, may be packed in strong outer packagings, in protective enclosures (for example, in fully enclosed or wooden slatted crates), or on pallets or other handling devices, instead of packages meeting the UN performance packaging requirements in paragraphs (b)(3)(ii) and (b)(3)(iii) of this section. The battery or battery assembly must be secured to prevent inadvertent movement, and the terminals may not support the weight of other superimposed elements;

(4) Irrespective of the limit specified in column (9B) of the §172.101 Hazardous Materials Table, the battery or battery assembly prepared for transport in accordance with this paragraph may have a mass exceeding

35 kg gross weight when transported by cargo aircraft; and

(5) Batteries or battery assemblies packaged in accordance with this paragraph are not permitted for transportation by passenger-carrying aircraft, and may be transported by cargo aircraft only if approved by the Associate Administrator prior to transportation.

(f) Damaged, defective, or recalled cells or batteries. Lithium cells or batteries, that have been damaged or identified by the manufacturer as being defective for safety reasons, that have the potential of producing a dangerous evolution of heat, fire, or short circuit (e.g., those being returned to the manufacturer for safety reasons) may be transported by highway, rail or vessel only, and must be packaged as follows:

(1) Each cell or battery must be placed in individual, non-metallic inner packaging that completely encloses the cell or battery;

(2) The inner packaging must be surrounded by cushioning material that is non-combustible, non-conductive, and absorbent; and

(3) Each inner packaging must be individually placed in one of the following packagings meeting the applicable requirements of part 178, subparts L, M, P and Q of this subchapter at the Packing Group I level:

(i) Metal (4A, 4B, 4N), wooden (4C1, 4C2, 4D, 4F), or solid plastic (4H2) box;

(ii) Metal (1A2, 1B2, 1N2), plywood (1D), or plastic (1H2) drum; or

(iii) For a single battery or for a single battery contained in equipment, the following rigid large packagings are authorized:

(A) Metal (50A, 50B, 50N);

(B) Rigid plastic (50H);

(C) Plywood (50D); and

(4) The outer package must be marked with an indication that the package contains a “Damaged/defective

lithium ion battery” and/or “Damaged/defective lithium metal battery” as appropriate.

(g) Approval. A lithium cell or battery that does not conform to the provisions of this subchapter may be transported only under conditions approved by the Associate Administrator.

19. In § 173.199, revise paragraph (a)(5) to read as follows:

§ 173.199 Category B infectious substances.

(a) * * *

(5) The following square-on-point mark must be displayed on the outer packaging on a background of contrasting color. The width of the line forming the border must be at least 2 mm (0.08 inches) and the letters and numbers must be at least 6 mm (0.24 inches) high. The size of the mark must be such that no side of the diamond is less than 50 mm (1.97 inches) in length as measured from the outside of the lines forming the border. The proper shipping name “Biological substances, Category B” must be marked on the outer packaging adjacent to the diamond-shaped mark in letters that are at least 6 mm (0.24 inches) high.



(i) Transitional exception – A marking in conformance with the requirements of this paragraph in effect on December 31, 2014, may continue to be used until December 31, 2016.

(ii) For domestic transportation, a packaging marked prior to January 1, 2017 and in conformance with the requirements of this paragraph in effect on December 31, 2014, may continue in service until the end of its useful life.

* * * * *

20. In § 173.302, revise paragraph (a) to read as follows:

§ 173.302 Filling of cylinders with nonliquefied (permanent) compressed gases or adsorbed gases.

(a) General requirements. (1) A cylinder filled with a non-liquefied compressed gas (except gas in solution) must be offered for transportation in accordance with the requirements of this section and § 173.301. In addition, a DOT specification cylinder must meet the requirements in §§ 173.301 a, 173.302a and 173.305, as applicable. UN pressure receptacles must meet the requirements in §§ 173.301b and 173.302b, as applicable. Where more than one section applies to a cylinder, the most restrictive requirements must be followed.

(2) Adsorbed gas. A cylinder filled with an adsorbed gas must be offered for transportation in accordance with the requirements of paragraph (d) of this section, § 173.301, and § 173.302c. UN cylinders must meet the requirements in §§ 173.301b and 173.302b, as applicable. Where more than one section applies to a cylinder, the most restrictive requirements must be followed.

* * * * *

21. In § 173.309, revise paragraph (e)(2) to read as follows:

§ 173.309 Fire extinguishers.

* * * * *

(e) * * *

(2) The valves are protected in accordance with §173.301b(c)(2)(i), (ii), (iii) or (v); and

* * * * *

22. In § 173.314, revise paragraph (k)(2) to read as follows:

§173.314 Compressed gases in tank cars and multi-unit tank cars.

* * * * *

(k) * * *

(2) DOT105J500W tank cars may be used as authorized packagings, as prescribed in this subchapter for transporting “UN 1017, Chlorine, 2.3 (8), Poison Inhalation Hazard, Zone B, RQ,” if the tank cars meet all DOT specification requirements, and the tank cars are equipped with combination safety relief valves with a start-to-discharge pressure of 360 psi, rather than the 356 psi. The start-to-discharge pressure setting must be marked on the pressure relief device in conformance with applicable provisions of the AAR Specification for Tank Cars (IBR, see §171.7 of this subchapter).

* * * * *

§ 173.334 [Amended]

23. Amend § 173.334 in paragraph (b) to remove the word “education” and add the word “education” in its place.

24. In § 173.417, revise paragraph (b)(2) to read as follows:

§ 173.417 Authorized fissile materials packages.

* * * * *

(b) * * *

(2) Type B(U) or Type B(M) packaging that also meets the applicable requirements for fissile material packaging in Section VI of the International Atomic Energy Agency “Regulations for the Safe Transport of Radioactive Material, SSR-6,” and for which the foreign Competent Authority certificate has been revalidated by the U.S. Competent Authority in accordance with §173.473. These packagings are authorized only for import and export shipments.

* * * * *

25. In § 173.420, revise paragraphs (a)(2)(i) and (d)(2) to read as follows:

§173.420 Uranium hexafluoride (fissile, fissile excepted and non-fissile).

(a) * * *

(2) * * *

(i) American National Standard N14.1 in effect at the time the packaging was manufactured; or

* * * *

(d) * * *

(2) The conditions of §§173.24, 173.24a, and 173.421(a) and (d) are met.

* * * *

§ 173.422 [Amended]

26. Amend § 173.422, in paragraph (c), to remove the reference to“175.700(b)” and add the reference “175.705” in its place.

27. In § 173.423, revise paragraph (a)(2) to read as follows:

§ 173.423 Requirements for multiple hazard limited quantity Class 7 (radioactive) materials.

(a) * * *

(2) Packaged to conform with the requirements specified in §173.421(a) through (e) or §173.424(a) through (g), as appropriate; and

* * * *

28. In § 173.426, revise paragraph (c) to read as follows:

§173.426 Excepted packages for articles containing natural uranium or thorium.

* * * *

(c) The conditions specified in §173.421 (b), (c) and (d) are met; and

* * * *

29. In § 173.428, revise paragraph (a) to read as follows:

§ 173.428 Empty Class 7 (radioactive) materials packaging.

* * * *

(a) The packaging meets the requirements of §173.421 (b), (c), and (e) of this subpart;

* * * * *

30. In § 173.436, revise footnote (b) following the table to read as follows:

§ 173.436 Exempt material activity concentrations and exempt consignment activity limits for radionuclides.

* * * * *

^b Parent nuclides and their progeny included in secular equilibrium are listed as follows:

Sr-90 Y-90

Zr-93 Nb-93m

Zr-97 Nb-97

Ru-106 Rh-106

Ag-108m Ag-108

Cs-137 Ba-137m

Ce-144 Pr-144

Ba-140 La-140

Bi-212 Tl-208 (0.36), Po-212 (0.64)

Pb-210 Bi-210, Po-210

Pb-212 Bi-212, Tl-208 (0.36), Po-212 (0.64)

Rn-222 Po-218, Pb-214, Bi-214, Po-214

Ra-223 Rn-219, Po-215, Pb-211, Bi-211, Tl-207

Ra-224 Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64),

Ra-226 Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210

Ra-228 Ac-228

Th-228 Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212(0.64)

Th-229 Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209

Th-nat Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)

Th-234 Pa-234m

U-230 Th-226, Ra-222, Rn-218, Po-214

U-232 Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)

U-235 Th-231

U-238 Th-234, Pa-234m

U-nat Th-234, Pa-234m, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210

Np-237 Pa-233

Am-242m Am-242

Am-243 Np-239

* * * * *

PART 175—CARRIAGE BY AIRCRAFT

31. The authority citation for part 175 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 44701; 49 CFR 1.81 and 1.97.

32. In § 175.10 revise paragraphs (a)(17)(v)(D) and (E) to read as follows:

§ 175.10 Exceptions for passengers, crewmembers, and air operators.

(a) * * *

(17) * * *

(v) * * *

(D) The battery must not exceed 300 Watt-hour (Wh); and

(E) A maximum of one spare battery not exceeding 300 Wh or two spares not exceeding 160 Wh each may be carried;

* * * * *

PART 176— CARRIAGE BY VESSEL

33. The authority citation for part 176 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

§ 176.104 [Amended]

34. Amend 176.104 in paragraph (c)(3) to remove the word “hoods” and add the word “hooks” in its place.

§ 176.116 [Amended]

35. Amend § 176.116 in paragraph (e)(3) to remove the reference “46 CFR 72.05-10(a)(1)” and add the reference “46 CFR 72.05-10(c)(1)” in its place.

36. In § 176.905, revise paragraph (i) to read as follows:

§ 176.905 Stowage of motor vehicles or mechanical equipment.

* * * * *

(i) Exceptions. A vehicle or mechanical equipment is excepted from the requirements of this subchapter if any of the following are met:

(1) The vehicle or mechanical equipment has an internal combustion engine using liquid fuel that has a flashpoint less than 38 °C (100 °F), the fuel tank is empty, installed batteries are protected from short circuit, and the engine is run until it stalls for lack of fuel;

(2) The vehicle or mechanical equipment has an internal combustion engine using liquid fuel that has a flashpoint of 38 °C (100 °F) or higher, the fuel tank contains 450 L (119 gallons) of fuel or less, installed batteries are protected from short circuit, and there are no fuel leaks in any portion of the fuel system;

(3) The vehicle or mechanical equipment is stowed in a hold or compartment designated by the administration of the country in which the vessel is registered as specially designed and approved for vehicles and mechanical equipment and there are no signs of leakage from the battery, engine, fuel cell, compressed gas cylinder or accumulator, or fuel tank, as appropriate. For vehicles with batteries connected and fuel tanks containing gasoline transported by U.S. vessels, see 46 CFR 70.10-1 and 90.10-38;

(4) The vehicle or mechanical equipment is electrically powered solely by wet electric storage batteries (including non-spillable batteries) or sodium batteries and the installed batteries are protected from short circuit;

(5) The vehicle or mechanical equipment is equipped with liquefied petroleum gas or other compressed gas fuel tanks, the tanks are completely emptied of liquefied or compressed gas and the positive pressure in the tank does not exceed 2 bar (29 psig), the fuel shut-off or isolation valve is closed and secured, and installed batteries are protected from short circuit; or

(6) The vehicle or mechanical equipment is powered by a fuel cell engine, the engine is protected from inadvertent operation by closing fuel supply lines or by other means, and the fuel supply reservoir has been drained and sealed.

* * * * *

PART 177—CARRIAGE BY PUBLIC HIGHWAY

37. The authority citation for part 177 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; sec. 112 of Pub. L. 103–311, 108 Stat. 1673, 1676 (1994); sec. 32509 of Pub. L. 112–141, 126 Stat. 405, 805 (2012); 49 CFR 1.81 and 1.97.

38. In § 177.838, revise the section heading and paragraph (g) to read as follows:

§ 177.838 Class 4 (flammable solid) materials, Class 5 (oxidizing) materials, and Division 4.2 (pyrophoric liquid) materials.

* * * * *

(g) A motor vehicle may only contain 45.4 kg (100 pounds) or less net mass of material described as “Smokeless powder for small arms, Division 4.1” or “Black powder for small arms, Division 4.1.”

* * * * *

PART 178--SPECIFICATIONS FOR PACKAGINGS

39. The authority citation for part 178 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

§178.71 [Amended]

40. Amend § 178.71 in paragraph (p)(15) to remove the phrase “ISO 11114-1” and add the phrase “ISO 11114-1” in its place.

§178.801 [Amended]

41. In § 178.801, redesignate paragraphs (1)(2)(viii) through (xi) as (1)(2)(vii) through (x).

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

42. The authority citation for part 180 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

43. In § 180.213, revise paragraph (f)(1) to read as follows:

§ 180.213 Requalification markings.

* * * * *

(f) * * *

(1) For designation of the 5-year volumetric expansion test, 10-year volumetric expansion test for UN cylinders and cylinders conforming to §180.209(f) and (h), or 12-year volumetric expansion test for fire extinguishers conforming to §173.309(a) of this subchapter and cylinders conforming to §180.209(e) and (g), the marking is as illustrated in paragraph (d) of this section.

* * * * *

Issued in Washington, DC, on November 17, 2015 under authority delegated in 49 CFR part 1.97.

Marie Therese Dominguez

Administrator

Pipeline and Hazardous Materials Safety Administration

[FR Doc. 2015-29683 Filed: 11/20/2015 8:45 am; Publication Date: 11/23/2015]